



RIDER I - PERSONAL SERVICES

1. General

- (a) The purpose of this Rider is to define the tasks required to: design, develop, implement, and support the CalPERS COMET Pension System Resumption (PSR) Project and establish the responsibilities for accomplishing these tasks.
- (b) For that work which has been identified, Task Schedules, as described herein and attached hereto, define and authorize such work on a Fixed Price basis, with a guarantee of task completion.
- (c) To the extent that additional work, not foreseen at the time this Agreement is executed, must be accomplished, Work Authorizations, as described in Section 7 of this Rider, will be the means for defining and authorizing such work with a guarantee of completion.

2. Statement of Work

- (a) Contractor shall make available to CalPERS personnel as listed on their Staffing Plan for the purpose of providing the services required to accomplish the tasks prescribed in the Task Schedules, in the manner described therein. Each task and deliverable will be considered complete when CalPERS has reviewed and approved the product or deliverable, as evidenced by CalPERS Project Manager, or designee, sign off on the product or deliverable.
- (b) Each Task Schedule contains, as a minimum, a description of the task, a statement of Contractor's responsibilities and a list of deliverable items (if any). All Tasks and Deliverables shall be provided for the fixed price listed in this Agreement.
- (c) Contractor agrees to perform the services for which Contractor and all their subcontractors are responsible, that Contractor will accomplish this work in the manner and in the time stated in the Task Schedules, and that Contractor will provide the deliverable items as required. This performance is predicated, however, on CalPERS meeting its responsibilities in the time and manner described in this Agreement.

3. Control and Supervision

The services provided by Contractor to accomplish the Statement of Work shall be under the control, management, and supervision of Contractor, including any subcontractors or Contractor staff business off-site or off-shore (if applicable).



4. Personnel

- (a) Contractor personnel shall perform their duties on the premises of CalPERS. With CalPERS express approval work may be performed on Contractor's premises or elsewhere. If Contractor identifies potential tasks that may be accomplished off-site or off-shore that do not adversely impact the project, CalPERS Project Manager or designee may grant exceptions based on Contractor's justification to work off-site or off-shore. However, Contractor must make the off-site or off-shore staff available to work at CalPERS headquarters at CalPERS request. If the request is made by CalPERS, all expenses to bring the off-site or off-shore staff to the PSR Project office space will be Contractor's responsibility (e.g., transportation, food, housing, etc.).
- (b) CalPERS reserves the right to disapprove the continuing assignment of Contractor Key Persons provided to CalPERS under this Rider. Contractor will make every reasonable effort to provide suitable qualified substitute personnel in a timely manner. CalPERS reserves the right to approve any replacement or additional staff prior to their starting on the project.
- (c) Contractor will make every effort consistent with sound business practices to honor the specific requests of CalPERS with regard to assignment of its employees; however, subject to Section 4.b above, Contractor reserves the sole right to determine the assignment of its employees. If a Contractor's employee is unable to perform due to illness, resignation, or other factors beyond Contractor's control, Contractor will make every reasonable effort to provide suitable qualified substitute personnel. Approval of said replacement will be subject to approval of the CalPERS Project Manager.
- (d) In recognition of the fact that Contractor personnel providing services under this Rider may perform similar services from time to time for others, this Rider shall not prevent Contractor from performing such similar services or restrict Contractor from using the personnel provided to CalPERS under this Rider, providing that such use does not conflict with or delay the performance of services under this Rider. Those Contractor staff proposed for the PSR Project at the Team Lead level and higher shall be committed to the project for the duration of their role. Change will only be allowed at the discretion of CalPERS Project Manager.

5. Work Standards

Contractor personnel shall adhere to the following work standards for the project:

- (a) Contractor will use Microsoft Office 2000 or the CalPERS approved version installed at CalPERS in the preparation of all project correspondence and deliverables.



- (b) Contractor will comply with CalPERS Information Security Policies and Practices. Any exceptions to the established practices must be agreed to in writing by CalPERS.
- (c) Contractor Project Manager will meet with CalPERS Project Manager or designee and other appropriate resources to review an outline of a Deliverable Expectations Document (DED) for each project deliverable in advance of its preparation. This process will establish expectations on all sides regarding the content, number of copies, required format, and acceptance criteria for the deliverables and facilitate the review process.
- (d) Contractor will maintain the Project Schedule in the CalPERS approved version of Primavera IT Project Office (formerly known as TeamPlay) or an automated tool accepted in writing by CalPERS.
- (e) Contractor will manage all project documentation in automated tools acceptable to CalPERS.

6. Responsibilities of CalPERS

- (a) For work performed at CalPERS premises, CalPERS shall provide the following work environment:
 - (i) Workstation office space for a maximum of 70 Contractor staff in accordance with the workspace and equipment plan identified in Contractor's proposal and approved by CalPERS;
 - (ii) Contractor workstation office space is defined as approximately 81 square feet per two consultants); and,
 - (iii) Access to printers, copiers, telephone, and desktop computers with approved CalPERS applications.
- (b) CalPERS is responsible for providing required information, data, and documentation, in its current form, as specified in the Request for Proposal, the PSR Reference Library, and reasonable access to program staff to facilitate Contractor's performance of the work. CalPERS shall provide such additional assistance and services as is specifically set forth in the Task Schedules.
- (c) Delay or failure by CalPERS to fulfill the above described responsibilities, such that Contractor is prevented from performing in accordance with the applicable Task Schedules, may result in additional costs to CalPERS and deviations from previously agreed upon work schedules. In this event, CalPERS and Contractor will initiate one or more Work Authorizations, as described in Section 7 of this Rider. Should Contractor determine that a delay exists, or is probable due to



failure of CalPERS performance, Contractor will notify CalPERS Project Manager in writing immediately.

- (d) CalPERS Project Manager, or designee, is responsible for ensuring the performance of CalPERS personnel under this Rider, and is the CalPERS individual to whom all communications relative to this Rider will be addressed.
- (e) CalPERS, with support and cooperation of Contractor, is responsible for the staging, installation, configuration and administration of the entire PSR production environment in accordance with the Physical Architecture and Implementation Architecture provided by Contractor.
- (f) CalPERS, with support and cooperation of Contractor, is responsible for the staging, installation, configuration and administration of the hardware and system level software for the PSR non-production environment(s), in accordance with the Physical Architecture and Implementation Architecture provided by Contractor.

7. Unanticipated Tasks

- (a) In the event that additional work must be performed which was wholly unanticipated, and which was identified in neither the RFP nor Contractor's proposal submitted in response thereto, but which, in the opinion of both parties, is necessary to the accomplishment of the general scope of work outlined, the procedures outlined herein will be employed.
- (b) For each item of unanticipated work, the CalPERS Project Change Control Process will be used. When the Change Control Request from this process is approved, a Work Authorization will be prepared by Contractor in accordance with the sample attached as Rider I, Exhibit 1 and will be incorporated as a Schedule to this Rider. All Contractor rates have been established by Contractor staff classification in Cost Table VII.12 – QBP Staff Hourly Rates.
- (c) It is understood and agreed by both parties to this Rider that all of the Terms and Conditions of this Rider shall remain in force with the inclusion of any such additional Work Authorization added as a Schedule to this Rider. Such Work Authorization shall, in no way, constitute an Agreement other than as provided pursuant to this Rider nor in any way amend any of the other provisions of this Agreement.
- (d) Each Work Authorization shall be prepared in accordance with Rider I, Exhibit 1, Sample Work Authorization.
- (e) All Work Authorizations must be signed by Contractor's Project Manager and approved by CalPERS Project Manager or designee prior to beginning work.



- (f) CalPERS has the right to require Contractor to stop or suspend work on any Work Authorization with fifteen (15) calendar days written notice.
- (g) If, in the performance of the work, Contractor determines that a Work Authorization to be performed under this Agreement cannot be accomplished within the estimated labor-hours, Contractor will immediately notify CalPERS in writing of Contractor's estimate of the labor-hours and additional cost which will be required to complete the Work Authorization in full. Upon receipt of such notification, CalPERS may elect to:
 - (i) Authorize Contractor to expend the estimated additional labor-hours of service in excess of the original estimate necessary to accomplish the Work Authorization (such an authorization not unreasonably to be withheld); or,
 - (ii) Terminate the Work Authorization; or,
 - (iii) Alter the scope of the Work Authorization in order to define tasks which can be accomplished within the remaining estimated labor-hours.
- (h) If a notification of additional cost for a Work Authorization is received by CalPERS, CalPERS will notify Contractor, in writing, within five (5) State business days of its election or when a decision can be expected. Contractor shall not initiate work effort for Work Authorizations until authorized in writing by CalPERS.
- (i) CalPERS agrees to reimburse Contractor as specified in Rider A for approved Work Authorizations upon acceptance by CalPERS.

8. Reporting

Contractor's Project Manager shall provide a Monthly Project Status Report (MPSR) to the CalPERS Project Manager, or designee. The report must include the following:

- (a) Overall project status as of the date of the report;
- (b) Work tasks accomplished, deliverables submitted, and milestones achieved during the previous month;
- (c) Work tasks or deliverables currently behind schedule, reason for the delay, and remedial actions specified;
- (d) Work tasks to be accomplished by Contractor during the forthcoming month;
- (e) Earned Value to date;
- (f) Identification of high and medium issues and risks as defined in the Risk and Issue Management and Mitigation Plan, actual and potential problem(s) that could delay



completion of the active phases or the production date, along with recommendation(s) for remedial action to ensure successful completion of the project on schedule;

- (g) Number of Contractor and subcontractor staff actively engaged on the project, number added in the current period, number departed in the current period, and anticipated number to add or leave project during the next reporting period; and,
- (h) Any risks that have materialized in the past month triggering actions identified in the Contingency Plan, status and reports, including a review of current and subsequent weeks' work plans, and an analysis of any problems previously encountered and still unresolved or anticipated to be encountered in accordance with this Rider I.

9. Deliverables

(a) Contractor Formal Transmittal of Deliverables

Contractor shall submit for review and approval a formal transmittal letter from Contractor's Project Manager addressed to CalPERS Project Manager, or designee, for each deliverable for the purpose of acceptance. The deliverable must contain an Approval Page which indicates the date submitted, to whom submitted, and title of the deliverable. The DED for the deliverable approval must be attached to the transmittal. Contractor should be aware that they are at risk for proceeding prior to formal acceptance of the preceding task or deliverable.

(b) CalPERS Approval of Deliverables

Detailed deliverable acceptance criteria will be developed in the DED based on the type of deliverable being reviewed in accordance with the applicable Institute of Electrical and Electronics Engineers (IEEE) standard or CalPERS approved equivalent for that deliverable. Upon acceptance of a deliverable, CalPERS will issue a Notice of Accepted Deliverable.

(c) CalPERS Review Time for Contractor Document Deliverables

CalPERS review time for document deliverables will vary based on the document type. Following are the review time parameters for each type of document deliverable:

- (i) Procedures, Requirements, Processes, or Models – ten (10) State business days;
- (ii) Various Project Administrative Plans – ten (10) State business days;
- (iii) Architectures, Service Level Agreements, Contractor test results – fifteen (15) State business days; and,



(iv) Specification and Design deliverables – twenty (20) State business days.

(d) Rejection of Deliverables

(i) If Contractor submits a deliverable that does not conform to its acceptance criteria as specified in the approved DED, it is deemed to be unsatisfactory and CalPERS may issue a Notice of Rejected Deliverable. The Notice shall be in writing and state the specific reason for the deficiency and provide the timelines for correction of the deficiency.

(ii) Within the specified timeline, Contractor shall resubmit the corrected Deliverable to the CalPERS Project Manager. In the event that significant changes or corrections are required, Contractor may request, in writing, an extension to the specified timeline. Approval of the extension is at the sole discretion of the CalPERS Project Manager.

(iii) If the resubmitted deliverable is not acceptable to CalPERS a second Notice of Rejected Deliverable will be issued. Contractor shall correct and resubmit the Deliverable within five (5) State business days of receipt of the second Notice.

(iv) If the corrected deliverable is not submitted within five days of receipt of the second Notice or if the corrected deliverable is submitted but is not acceptable to CalPERS, CalPERS Project Manager shall exercise one of the following options:

(a) Issue a third Notice of Rejected Deliverable and allow the Contractor additional attempts to correct defects;

(b) Issue a conditional Notice of Accepted Deliverable thus allowing the Contractor to move forward with the Project. The Contractor will not be paid until the deliverable is unconditionally accepted by CalPERS.

(c) Send the third Notice of Rejected Deliverable and initiate the PSR Escalation Process.

(e) Inspection of Work in Progress

Contractor agrees that the CalPERS Project Manager or designee shall have the authority to inspect any and all of Contractor's work in progress. The purpose of such inspections will be to verify project progress as reported by Contractor and to ensure that work products are in conformity with requirements or Agreement provisions. Deviations will be corrected by Contractor within a reasonable period of time following notification.



(f) List of Deliverables

Refer to Task Schedules Rider I.10.

10. Task Schedules

Contractor shall identify, plan for, and provide Task Schedules for any additional tasks it believes are necessary. Such additional tasks may require CalPERS approval, CalPERS involvement in providing staff, data, planning or supplies, or both. Additional tasks must be included in the Project Schedule as soon as identified and agreed to by Contractor and PSR Project Managers either as a further breakdown of an existing task, or under the provisions of Unanticipated Tasks. The purpose of the Task Schedules is to identify what Contractor must deliver as stated in Section 55 of the Agreement.

- (a) Contractor shall fully perform, complete and deliver all work, tasks, deliverables, goods, services and/or other items, however denoted, as set forth below or in any attached or referenced document, in full compliance with the RFP No. 2004-3494, Contractor's Response to the RFP, and this Agreement. Work shall be performed at CalPERS Headquarters in Sacramento, California.

(b) Agreement Scope

This project shall implement a Pension System for CalPERS. The solution shall be implemented in stages as described in CalPERS RFP No. 2004-3494 and as modified by CalPERS approved Contractor plans and schedules.

The PSR Project provides for delivery of all application software, hardware and appropriate operating systems, detailed requirements definition, business, processes, system development, system configuration, system implementation, interface development, training of CalPERS staff, data conversion, development of documentation specific to the CalPERS installation, integration, and roll-out of the fully functional product, ongoing maintenance and related services as necessary to accomplish all of the requirements set forth in this document and the RFP. This includes, but is not limited to, delivery, setup, installation, detail requirements definition, general and detailed design, "to be" modeling, programming and configuration, testing, training, developing required documentation, and modifications or corrections necessary to meet the system objectives and requirements. It also includes all aspects of system operation and maintenance of the system for the term specified in the RFP.

(c) Responsibilities of Contractor

Contractor shall deliver to CalPERS a complete business solution in accordance with the Task Schedules identified in this Rider I.



(d) Documentation

Contractor is responsible for providing full and complete system documentation, including software, hardware, and CalPERS specific customizations or modifications and two (2) copies in an electronic format acceptable to CalPERS.

Contractor must grant CalPERS an unrestricted royalty-free license to modify or produce as many copies of the system documentation as developed under this Agreement.

(e) Task Schedules by Phase – Rider I, Exhibit 2

Contractor is responsible for the attached Task Schedules to be identified in this Rider I. Contractor will perform the Initiation Phase and must receive CalPERS written approval prior to commencing activities on any additional Phases or Tasks. Upon Contractor completion of the Initiation Phase, both Contractor and CalPERS will conduct a review to ensure Contractor has a firm knowledge of the detailed business and technical requirements and how the new solution will work in the CalPERS environments. At the end of the Initiation Phase, either CalPERS or Contractor can exercise the option to terminate this Agreement in accordance with Section 7 of the Agreement or proceed forward with the project.

**Exhibit 1 – Sample Work Authorization**

Schedule #:	
Title:	(Title of the Work Authorization (WA))
Task Summary:	(2-3 sentence description of the work to be performed, the origin of the request, and/or the reason for the WA.)
Priority:	(Priority Information from Change Control)
Release Identification:	(Planned Release: Release Identification (if applicable) from Release Management Plan)
Schedule Dates:	(Start Date: Date the work should start)
Completion Date:	(Date the work will be delivered, in final form, for CalPERS Acceptance Testing.)

Estimated Labor-hours	Rate Per Labor-hour	Estimated Cost
	\$	\$
	\$	\$
	\$	\$
TOTAL		TOTAL

Contractor Personnel To Be Assigned	Job Classification/Skill Level
XXX	Staff Programming Analyst

This task will be performed in accordance with this Work Authorization and the provisions of Rider I, Section 7, entitled "Unanticipated Tasks".

Approval:

Contractor Project Manager Date

CalPERS Project Manager Date



Exhibit 1 – Sample Work Authorization (Continued)

A. Task Description

Detailed description of the WA including work to be performed, potential impact to schedule if not performed, dependencies, and other items of significance.

B. Tasks and Contractor Responsibilities

1.

2.

3.

C. Deliverables

1.

2.

3.

D. Completion Criteria

Delivery of the accepted program and associated deliverable items listed under heading "C" above will constitute completion of this task.

E. Change Criteria

The program developed under this Work Authorization shall be subject to the PSR Project Change Control Procedures.

F. CalPERS Responsibilities

1.

2.



Exhibit 2 – Project Phase Descriptions and Subtasks

Throughout the term of this Agreement, under the management of CalPERS Project Manager, or designee, Contractor shall provide project management and control of functions for PSR project activities including, but not limited to, the items listed below:

1. Contractor staffing and personnel matters;
2. Management of Contractor technical staff;
3. Project planning and direction;
4. Internal project reviews;
5. Status reporting weekly and monthly;
6. Evaluation of results of testing and testing status reporting;
7. Business process improvement design, detailed design and transition planning;
8. Application and system software and/or software configuration, modifications, acquisition, installation, integration, operations and maintenance;
9. Security analysis;
10. Technical design and issue resolution;
11. Data translation, transformation, and/or conversion;
12. System hardware acquisition, installation, integration, operation, and maintenance;
13. Application of requisite technical and management skills and techniques to ensure high quality, effective project deliverables;
14. Risk and issue management and resolution;
15. Configuration and Release Management;
16. Cooperation and functional integration with CalPERS performance and oversight entities and participation in oversight reviews of the PSR Project;
17. Implementation of a Quality Assurance Program and procedures to ensure that proper Project Management controls exist and are in use;
18. Management reporting to CalPERS;



19. Training on the new solution;
20. Scheduled periodic assessments of progress and performance;
21. CalPERS may elect to have Contractor present any deliverable; and,
22. Reviews and Presentations – when called out as deliverables, Contractor shall:
 - (a) Develop their plan for the event;
 - (b) Identify and schedule participants from Contractor and CalPERS;
 - (c) Conduct the event;
 - (d) Incorporate agreed-upon changes into the subject material; and,
 - (e) Publish the changes for approval.

Unless explicitly stated, Contractor will not be responsible for the performance of CalPERS staff.

PROJECT PHASE 1: INITIATION

Contractor shall produce and deliver a Deliverable Expectations Document (DED) for each required deliverable. Through this process, both Contractor and CalPERS will have an opportunity to tailor each deliverable and minimize rework. Contractor shall not begin work on a deliverable until CalPERS and Contractor have approved the deliverable's DED, which becomes the baseline for the deliverable. All project documents will be moved into a repository tool for version control that is accepted by CalPERS and use this product for the lifetime of the project.

Subtask 1.1 Develop Deliverable Expectation Document Template

Deliverable 1.1.1 – Deliverable Expectation Document Template

Contractor shall provide a DED template in accordance with the Project Plan. Thereafter, a DED will be required for each project deliverable document.

Subtask 1.2 Validate Contractor Equivalent Standards (Optional)

Throughout the design and implementation of the PSR Project, Contractor must use standards specified in this Agreement. Should Contractor request and justify an equivalent standard be used in place of the CalPERS standard, CalPERS must approve the request prior to Contractor's use. Contractor must obtain CalPERS approval for each proposed substitution before using the substitute.



Deliverable 1.2.1 – Justification for a Contractor Equivalent Standard

Contractor shall provide written justification for each Contractor equivalent standard in accordance as necessary.

Subtask 1.3 Develop and Present Project Management Plan and Schedule for the Initiation Phase

Deliverable 1.3.1 – Initiation Phase Project Management Plan

Contractor shall provide the Initiation Phase Project Management Plan (PMP) within ten (10) State business days of the project start date for review and approval by CalPERS. This Initiation Phase PMP shall be for the Initiation Phase only for Contractor to document the business and technical requirements at a detailed level. The Initiation Phase PMP shall be developed using IEEE Standard 1058-1998 or a CalPERS approved equivalent. Content should include, at a minimum, the following components:

- Project Overview;
- Project Schedule;
- Management Objectives and Priorities;
- Roles and Responsibilities;
- Project Assumptions, Dependencies, and Constraints;
- Procedures for Reviewing and Updating the PMP;
- Project Deliverables;
- Plan for Development and Maintenance of the Internal Project Website; and,
- References, Definitions, and Acronyms.

Deliverable 1.3.2 – Project Management Methodology Description

Contractor shall provide a detailed Project Management Methodology Description to supplement the PMP.

Deliverable 1.3.3 – Initiation Phase Project Schedule

Contractor shall provide a detailed Initiation Phase Project Schedule that includes a breakdown of tasks to be performed, critical path monitoring, schedule issues, status reporting based on work breakdown structure, and contingency activities.

Deliverable 1.3.4 – Project Schedule Management Plan

Contractor shall provide a detailed Project Schedule Management Plan that describes their approach to schedule management factors including resource updates, tracking of resource activities, earned value reporting (cost-based in dollars), tracking of milestone progress and reporting, critical path monitoring, schedule issues, status reporting based on work breakdown structure, and contingency activities.

Deliverable 1.3.5 – Initiation Phase Project Management Plan Presentation

Contractor shall present the Initiation Phase PMP and Schedule during a regularly scheduled Project Management Review (PMR) in accordance with the Initiation Phase PMP and Project Schedule.

Subtask 1.4 Develop Project Control and Reporting SystemDeliverable 1.4.1 – Project Control and Status Report

Contractor must produce weekly and monthly status reports and conduct monthly Project Management Reviews (PMRs) in accordance with the Project Plan and Schedule. The Project Control and Reporting System shall include, but not be limited to the following components:

- (a) Daily twenty (20) minute Status Meetings between CalPERS Project Manager, Contractor Project Manager, and/or their designees;
- (b) Weekly Status Reports;
- (c) Weekly Management meetings between CalPERS and Contractor Project Managers;
- (d) Monthly Project Status Reports;
- (e) Monthly Project Management Review meetings between CalPERS and Contractor Project Managers; and,
- (f) Ongoing Issues and Risk Reports.

This deliverable will continue through all Phases of the PSR Project.

Deliverable 1.4.2 – Weekly Status Reports

Contractor will develop a template to be used for the duration of the project for Weekly Status Reporting in accordance with the PMP and the Project Schedule.

Contractor's Project Manager shall provide written Weekly Status Reports (WSR) to the CalPERS Project Manager, or designee. The status reports must compare actual progress and hours spent for the preceding week with the approved Project Schedule and discuss any variances and work scheduled for



the following period. The first weekly report is due to CalPERS Project Manager, or designee, two weeks after the start date of this Agreement. This subtask will be required through all phases of the PSR Project.

Deliverable 1.4.3 – Monthly Project Status Reports

Contractor will develop a template to be used for the duration of the project for Monthly Project Status Reporting. Contractor's Project Manager shall prepare a written Monthly Project Status Report (MPSR) summarizing progress against approved milestones. Contractor shall provide issue and risk status in their monthly reports. This report must cover all activities for the preceding month including, when applicable, the system's performance against all service levels specified in the RFP. Contractor's Project Manager shall be required to attend meetings on CalPERS premises to present the monthly reports. The first monthly report is due to CalPERS Project Manager, or designee, on the tenth of the month following the end of the previous month. Period of the report is the previous calendar month. This subtask will be required through all phases of the PSR Project.

Deliverable 1.4.4 – Monthly Project Management Review

Contractor shall conduct monthly Project Management Review (PMR) to present the current and cumulative project status information related to open and on-going issues. The PMR shall be conducted no later than the 15th calendar day of the following month.

Subtask 1.5 Maintain Ongoing Issues Management

Deliverable 1.5.1 – Issues Report

Contractor shall present an Issues Report format to CalPERS Project Manager, or designee for approval. Contractor shall track the current and cumulative project status information related to open and ongoing issues as identified in the Project Plan. Contractor shall develop and update an ongoing Issues Report, which will be part of the Weekly and Monthly Project Status Reports. Contractor will report on management, business, and technical issues. Contractor shall present this report at each weekly status meeting using a format, which includes:

1. Management or technical issues;
2. Status of the issues, (i.e., open, pending, under investigation or resolved);
3. Appropriate tracking dates;
4. Person and organization responsible for resolution; and,



5. Contractor's recommendations for resolving issues.

Subtask 1.6 Develop Draft Concept of Operations Document

Deliverable 1.6.1 – Draft Concept of Operations Document

Contractor will develop a Draft Concept of Operations (ConOps) Document for the new solution in accordance with the Initiation Phase Project Plan and Schedule. The Draft ConOps Document is used to facilitate understanding between the business users and Contractor. This document is a user-oriented document that describes system characteristics. The Draft ConOps Document describes the current system or situation, the needs that motivate the development of a new system, modes of operation for the proposed system, user classes and characteristics, operational features of the proposed system, and priorities among proposed operational features. The Draft ConOps Document should include the use of visual forms (e.g., diagrams, illustrations, swim lanes, process flows, etc.). The Draft ConOps Document should also describe training, staffing, and maintenance efforts of the proposed solution. At a minimum, the Draft ConOps Document should include a general description of the activities required to ensure complete detailed requirements are captured as well as how the Draft ConOps Document will be developed.

The Draft ConOps Document will provide a description of the business processes that CalPERS must implement in conjunction with the new PSR System. It shall describe the Draft ConOps for the CalPERS of the future in accordance with RFP Section IV. The Draft ConOps Document will be used by CalPERS to tailor its business processes for the PSR Project implementation. The Draft ConOps Document shall be developed with the input and review of CalPERS business and technical staff. No business process improvement activity shall be included in the Draft ConOps Document that CalPERS has not agreed to implement.

The Draft ConOps Document shall be developed using the IEEE Standard 1362-1998, IEEE Guide for Information Technology – System Definition – Draft ConOps Document or a CalPERS approved equivalent, as a guide for the format and content. As additional components are developed during the life cycle of the project, they will be added to or updated in the Draft ConOps Document.

Deliverable 1.6.2 – Draft ConOps Presentation

Contractor shall develop a presentation of their Draft ConOps for the new solution and present to CalPERS in accordance with the Project Plan and Schedule.



Subtask 1.7 Develop Detailed Requirements and Requirements Traceability Matrix

Deliverable 1.7.1 – Develop Detailed Requirements

Contractor shall develop Detailed Requirements using IEEE 1233-1998 standard or CalPERS approved equivalent.

Deliverable 1.7.2 – Requirements Traceability Matrix

Contractor shall provide a Requirements Traceability Matrix in accordance with the Initial Project Plan and Initial Project Schedule. Contractor shall organize and manage the itemized list of business and technical requirements for the PSR Project. Contractor shall produce a “drill down” of the requirements from the high-level requirements as found in RFP Sections V (Technical) and VI (Business), by Project Phase, according to Contractor’s plan for implementation of the PSR Project. Contractor must analyze all business and technical requirements, business rules, and detailed requirements to ensure full understanding of the complexity of the business functions mapped to the RFP requirements.

Contractor must conduct meetings and conferences with CalPERS staff to ensure adequate CalPERS participation in development of the Requirements Traceability Matrix.

This Matrix must be updated at the end of each phase of the PSR Project to ensure traceability is maintained throughout the life of the project.

At a minimum, requirements must:

- (a) Have a unique, traceable identifier or identification code;
- (b) Be grouped into highest level of business, technical, and administrative categories;
- (c) Be associated with a Project Phase in which Contractor will fulfill the requirement;
- (d) Identify other requirements and their priority that are dependent upon fulfillment of the requirement; and,
- (e) Be prioritized within each phase according to the following:
 - (i) High priority means that the requirement must be fulfilled during the associated phase and the requirement has one or more high priority requirements dependent upon its fulfillment;
 - (ii) Medium priority means that the requirement must be fulfilled during the associated phase and the requirement has one or more medium priority requirements dependent upon its fulfillment;



- (iii) Low priority means that the requirement could be fulfilled during the associated phase and the requirement has no high or medium priority requirements dependent upon its fulfillment.

Subtask 1.8 Develop Requirements Gap Analysis Report

Deliverable 1.8.1 – Requirements Gap Analysis Report

Contractor shall provide a Requirements Gap Analysis Report in accordance with the Project Plan and Project Schedule. Contractor shall identify gaps and verify the completeness of the business and technical requirements. Activities must include:

- (a) Perform analysis on business and technical requirements to document gaps;
- (b) Identify and schedule review team participants;
- (c) Conduct the detailed requirements review; and,
- (d) Identify additional detailed requirements.

Subtask 1.9 Develop Key Strategic Goals Performance Metrics

Deliverable 1.9.1 – Performance Metrics

Contractor shall develop performance metrics for the key strategic goals. Contractor shall work with CalPERS to confirm key strategic goals and identify mutually acceptable measurement metrics. Activities must include:

- (a) Perform analysis on existing performance metrics;
- (b) Document key strategic goals;
- (c) Identify target metrics; and,
- (d) Document metrics measurement process.

Subtask 1.10 Phase Report

Deliverable 1.10.1 – Phase Report

Contractor shall submit a report indicating that all phase activity is complete including status of deliverables, outstanding issues, and their progress toward supporting the strategic goals of the project. For Milestone 1 and the associated Off-Ramp, Contractor shall provide a report detailing the degree to which their proposal assumptions were valid. The report should specify any changes necessary to assumptions to allow for successful completion of the project and should be based on the Contractor's validation of these



assumptions under actual conditions of the project. The report should also specify why the Contractor believes the changes to assumptions are required and how these changes will allow them to successfully complete the project. The Contractor should include in the report what the potential impact is for the results of the assumption validation to include: contract, schedule, plans, staffing, and changes to cost or schedule.

PROJECT PHASE 2: PLANNING

Subtask 2.1 Develop and Present Project Management Plan and Schedule

Deliverable 2.1.1 – Project Management Plan

Contractor shall provide the Project Management Plan (PMP) ten (10) State business days after the acceptance of the Initiation Phase Milestone for review and approval by CalPERS, which will cover the remainder of the project. Some of the components that were developed for the Initiation Phase will carry forward (e.g., weekly and monthly reporting, methodology, issue management, etc.) The PMP shall be developed using IEEE Standard 1058-1998 or a CalPERS approved equivalent, as a guide for the format and content.

Deliverable 2.1.2 – Software Development Plan

Contractor shall provide a Software Development Plan to supplement the PMP, which includes, at a minimum, a general description of the phases and activities required to ensure complete implementation of the proposed solution. The Software Development Plan must be developed according to JStd-016 IEEE standard or CalPERS approved equivalent.

Deliverable 2.1.3 – Project Schedule

Contractor shall provide a Project Schedule including Work Breakdown Structure using the CalPERS approved version of Primavera IT Project Office or CalPERS approved equivalent. Contractor must present tasks, start and completion dates, task initiation and completion criteria, relationships and dependencies among tasks, timing, major deliverable milestones, resource allocations, and GANTT chart.

The Detailed Work Plan and Milestone Chart shall be updated by Contractor on a weekly basis. Contractor must automate the production of the Project Schedule using a CalPERS approved scheduling tool.

Deliverable 2.1.4 – Project Management Plan Presentation

Contractor shall present the PMP and Schedule during a regularly scheduled Project Management Review (PMR) in accordance with the Project Schedule.

**Subtask 2.2 Develop and Maintain the Risk Management Plan for Ongoing Risks****Deliverable 2.2.1 – Risk Management Plan**

Contractor must produce and maintain a Risk Management Plan using IEEE Guide, Adoption of PMI Standard, A Guide to the Project Management Management Body of Knowledge, in accordance with the Project Schedule. Contractor Project Manager will present the status of all outstanding risks and issues rated “high” or “medium” at the Weekly PSR Project Status Meetings. Those risks resolved since the last meeting will be reviewed and resolution presented. If the resolution is not satisfactory or agreement cannot be reached, the CalPERS Project Manager will invoke the PSR Escalation Process for a final decision. New risks or issues identified will be assigned a number and logged into PSR Project Risk and Issue Management Database. CalPERS Project Manager or designee and Contractor Project Manager will review the background material developed by the originator of the risk or issue, prioritize, and assign the resolution and research assignment to the appropriate team member.

Deliverable 2.2.2 – Risk Management Report

Contractor must produce a weekly Risk Management Report in accordance with the Project Plan and Schedule.

Deliverable 2.2.3 – Risk Management Database

Contractor must provide a Risk and Issue Management Database where all PSR Project risks are tracked and generate weekly reports for the CalPERS Project Manager.

Deliverable 2.2.4 – Risk Contingency Plan

Contractor shall provide a PSR Project Risk Contingency Plan which will identify the courses of action to be taken by Contractor for any realization of risk that is found to be unacceptable due to impact on costs, schedule, quality, or scope of the project. The PSR Project Risk Contingency Plan will establish a documented set of planned alternatives for major concerns for a project of this size and scope. The Plan should address, but not be limited to, the following conditions:

- (a) Contractor’s failure to deliver fully compliant system components according to schedule;
- (b) A major operational disruption or failure of the new system immediately following implementation;
- (c) Loss of Key Persons on Contractor or CalPERS teams;



- (d) Data conversion problems or failure;
- (e) Disaster before full system implementation;
- (f) Implemented system does not meet performance thresholds;
- (g) Failure of CalPERS business scenarios to identify all potential software problems; and,
- (h) Other potential risks identified by Contractor.

Subtask 2.3 Develop and Implement Quality Assurance Plan

Deliverable 2.3.1 – Quality Assurance Plan and Methodology

Contractor must deliver and implement a Quality Assurance (QA) Plan and Methodology developed according to IEEE Standard 730-2002 or CalPERS approved equivalent to create the plan.

Subtask 2.4 Develop Configuration Management Plan

Deliverable 2.4.1 – Software Version Control and Configuration Management Plan

Contractor must develop a Software Version Control and Configuration Management (CM) Plan for documents (using an automated tool acceptable to CalPERS) using IEEE Standard 828-2005 or CalPERS approved equivalent to create the plan.

Subtask 2.5 Develop Draft Technical Architecture Plan

Deliverable 2.5.1 – Draft Technical Architecture Plan

Contractor shall develop a Technical Architecture Plan (TAP) for the PSR Solution using IEEE Standard 1471-2000 or CalPERS approved equivalent to create the plan including:

- (a) Technical Architecture Team – team membership, governance, and oversight for technical architecture activities;
- (b) Architectural Studies and Evaluations – methodology, criteria, and engineering tradeoffs used to determine choices and components;
- (c) Technology guidelines; and,
- (d) Technical Architecture References – activities, references, and descriptions of technical architecture elements:
 - (i) Interfaces and boundaries



- (ii) System properties
- (iii) Reference models
- (iv) Technology blueprints
- (v) Technology elements:
 - (1) Services
 - (2) Data sources and business rules
 - (3) Platforms, equipment, and packaged solutions
 - (4) Network.

Deliverable 2.5.2 – Draft TAP Presentation

Contractor shall develop a presentation of their Draft TAP for the new solution and present to CalPERS in accordance with the Project Plan and Schedule.

Subtask 2.6 Develop Draft Application and Technical Security Plan

Deliverable 2.6.1 – Draft Application and Technical Security Plan

Contractor shall develop a Draft Application and Technical Security Plan.

Subtask 2.7 Develop Communications Strategy

Deliverable 2.7.1 – Communications Strategy

Contractor shall define the required communications internal to and external to CalPERS in accordance with the Project Plan and Project Schedule. The strategy shall define the required media, events and channels to achieve the communication objectives. Contractor shall design necessary information for distribution to CalPERS staff or posting on the internal project website, members, and employers to announce the implementation of PSR and channels to contact. CalPERS must review and approve all such materials.

Subtask 2.8 Develop Draft Training Plan

Deliverable 2.8.1 – Draft Training Plan

Contractor shall develop a Draft Training Plan for the business users, end users, internal and external stakeholders, and special business partners. The Training Plan shall describe Contractor's philosophy on user training to include use of computer based training software, classroom lectures, and hands-on computer laboratory environment. Contractor shall describe the maximum class



size by functional area and define different training for executives, management, business staff, and information technology staff. The Draft Training Plan shall also address the "Train-the-Trainers" concept which would allow CalPERS to conduct additional training using in-house resources.

Subtask 2.9 Phase Report

Deliverable 2.9.1 – Phase Report

Contractor shall submit a report indicating that all phase activity is complete including status of deliverables, outstanding issues, and their progress toward supporting the strategic goals of the project.

PROJECT PHASE 3: GENERAL DESIGN

Subtask 3.1 Develop General System Requirements Specifications

Deliverable 3.1.1 – General System Requirements Specifications

Contractor shall develop a General System Requirements Specification (GSRS) in accordance with the Project Plan and Project Schedule. The GSRS shall provide a description of the general system from the requirement specifications accepted. It shall completely describe all inputs, outputs, and the required relationships between the inputs and outputs. The GSRS shall be developed using the IEEE Standard 1233 -1998, IEEE Guide for Developing Systems Requirements Specifications, as a guide for the format and content of the GSRS or a CalPERS approved equivalent.

Deliverable 3.1.2 – Updated Detailed Requirements Traceability Matrix

Contractor must update the detailed Requirements Traceability Matrix established under Subtask 1.7. The Matrix must have the ability to produce reports and data extracts, and shall form the basis for requirements traceability.

Deliverable 3.1.3 – Software Requirements Specifications

Contractor is responsible for the Software Requirements Specifications that is developed from the GSRS in accordance with the Project Plan and Project Schedule. Contractor shall provide the Software Requirements Specifications in accordance with the Project Plan and Project Schedule using IEEE Standard 830-1998 or a CalPERS approved equivalent.

**Deliverable 3.1.4** – Software and System Requirements Specifications Review

Contractor must facilitate the review and approval of Contractor's specifications with CalPERS Project Manager, Architecture Committee, and Business Owners Committee.

Subtask 3.2 Develop General System Design**Deliverable 3.2.1** – General System Design Specifications

Contractor shall develop a General System Design Specifications (GSDS) in accordance with the Project Plan and Schedule. The GSDS is the set of activities in the project lifecycle during which the functional designs for architecture, software components, interfaces, and data are created, documented, and verified to satisfy the requirements definition. The purpose of this phase is to determine "how" the requirements will be satisfied by the new system. The general system design is typically more user-oriented. Security considerations, user education, and installation strategies are addressed in this phase.

In the GSDS, the overall structure of the software product must be defined from a functional viewpoint. The functional design describes the logical system flow, data organization, system inputs and outputs, processing rules, and operational characteristics of the software from the user's point of view. It is not concerned with the software or hardware that will support the operation of the product. Neither, is it concerned with physical organization of the data or the programs that will accept the input data, execute the processing rules, and produce the required output.

Deliverable 3.2.2 – GSDS Presentation

Contractor shall develop a presentation of their GSDS for the new solution and present to CalPERS in accordance with the Project Plan and Schedule.

Subtask 3.3 Develop Communications Plan**Deliverable 3.3.1** – Communications Plan

The Communications Plan shall be developed in accordance with the Project Management Institute's Body of Knowledge (PMBOK) or CalPERS approved equivalent and in accordance with the Project Plan and Schedule.

**Subtask 3.4 Develop Detailed To Be Business Process Model****Deliverable 3.4.1** – To Be Business Process Model Document

Contractor shall provide the To Be Business Process Model Document in accordance with the Project Plan and Project Schedule for the new business processes and the ConOps. The Model will be used to develop business transition plans in support of the PSR Project implementation and to ensure detailed business and technical requirements are at a level to enable creation of the Detailed Design Specifications.

Deliverable 3.4.2 – To Be Business Process Model Review

Contractor shall conduct a To Be Business Process Review in conjunction with the ConOps with CalPERS business staff and PSR Project staff to verify the completeness of the model and to ensure that the business processes, as documented, can be implemented and meet CalPERS objectives and timeframes.

Subtask 3.5 Develop Draft Data Conversion Plan**Deliverable 3.5.1** – Draft Data Conversion Plan

Contractor must deliver a Draft Data Conversion Plan (DCP) describing the sequence of steps in data conversion. Contractor's Draft DCP must include the extent of data clean-up of existing CalPERS data in the legacy systems as well as a recommendation of how much detail data to convert.

The Draft DCP should include Contractor conversion strategy of "cut-over", "phased", or "parallel processing". Additionally, the Draft DCP should cover the following aspects of data conversion:

- (a) Conversion scope
- (b) Conversion method, strategy, and environment;
- (c) Conversion control;
- (d) Conversion test;
- (e) Conversion reporting;
- (f) Conversion reconciliation;
- (g) Conversion reversal;
- (h) Conversion preparation;
- (i) Data clean-up activities;
- (j) Data "freeze" schedule;
- (k) File and database names and descriptions;



- (l) File structures;
- (m) Data conversion rules;
- (n) Conversion validation rules;
- (o) Accessing methods;
- (p) Device types to be used for conversion;
- (q) Dependencies;
- (r) CalPERS Conversion acceptance criteria;
- (s) Step by step conversion procedures;
- (t) Automated procedures (e.g., conversion programs);
- (u) Manual procedures (data entry procedures);
- (v) Conversion verification procedures and activities required for system testing;
- (w) Activities required to perform file balancing and control;
- (x) Parallel file maintenance procedures and controls;
- (y) Special conversion training, such as conversion data entry, file balancing and control;
- (z) The number and type of support staff and required time frames;
- (aa) Conversion timeline; and,
- (bb) Decommissioning of legacy systems and transition to the new applications.

The Draft DCP must be submitted, finalized, and approved by CalPERS ninety (90) days prior to the commencement of conversion activities. A test data conversion must be performed and all data validated, accepted, and approved by CalPERS prior to the full conversion commencing.

Deliverable 3.5.2 – Draft DCP Presentation

Contractor shall develop a presentation of their Draft DCP for the new solution and present to CalPERS in accordance with the Project Plan and Schedule.

Subtask 3.6 Develop Test Strategy

Deliverable 3.6.1 – Test Strategy

Contractor shall define how they intend to test every aspect and component of the system to test requirements in accordance with the Project Plan, Project Schedule, and Service Level Agreements. Test procedures, scenarios, cases, and expected results must be approved by CalPERS prior to the start of testing.



At a minimum, individual components must be tested prior to integration and software data interfaces must be tested. CalPERS and Contractor shall create business test scenarios and business cases to support the test effort, validate all requirements and business rules, and to simulate the different types of transactions expected.

Deliverable 3.6.2 – Test Strategy Presentation

Contractor shall develop a presentation of their Test Strategy for the new solution and present to CalPERS in accordance with the Project Plan and Schedule.

Subtask 3.7 Phase Report

Deliverable 3.7.1 – Phase Report

Contractor shall submit a report indicating that all phase activity is complete including status of deliverables, outstanding issues, and their progress toward supporting the strategic goals of the project.

PROJECT PHASE 4: DETAILED DESIGN

Subtask 4.1 Develop Detailed Design Specifications

Deliverable 4.1.1 – Develop Detailed Design Specifications

Contractor shall develop Detailed Design Specifications (DDS) in accordance with the project schedule. The DDS show how the system is structured to satisfy the specified requirements. This includes detailed system flows, program specifications, and database specifications that are required to construct the applications. Contractor shall produce detailed designs for system interfaces, modified software, conversion software, and any other component that must be created, configured or modified for the PSR solution. For software components this document must be developed using IEEE Standard 1016-1998 or CalPERS approved equivalent.

Deliverable 4.1.2 – Detailed Design Specifications Presentation

Contractor shall develop a presentation of their Detailed Design Specifications for the new solution and present to CalPERS in accordance with the Project Plan and Schedule.

**Subtask 4.2 Develop Draft Transition Plan**Deliverable 4.2.1 – Draft Transition Plan

Contractor shall produce a Draft Transition Plan that defines CalPERS transition from the legacy systems to the new solution. The Draft Transition Plan will address how the new solution will be rolled out to CalPERS business users, stakeholders, and external users. This Plan will include how the business process transition will take place, how the new methods of doing business will be conveyed to the end user community, and the steps that will be taken to assess the CalPERS “workplace readiness” prior to the new solution going into production. The decision to “go live” will be made by the PSR Project Executives upon recommendation of the CalPERS Project Manager, Business Owners Committee, and the PSR Steering Committee. Contractor shall produce a Draft Transition Plan in accordance with the Project Plan schedule.

Deliverable 4.2.2 – Organizational Change Plan

Contractor shall develop an Organizational Change Plan in accordance with the Project Plan.

Deliverable 4.2.3 – Draft Transition Plan and Organizational Change Plan Presentation

Contractor shall develop a presentation of their Draft Transition Plan and Organizational Change Plan and present to CalPERS in accordance with the Project Plan and Schedule.

Subtask 4.3 Develop Draft Operations and Maintenance PlanDeliverable 4.3.1 – Draft Operations and Maintenance Plan and Procedures for PSR System

Contractor shall document all ongoing PSR operations and requirements of the system detailing all tasks, deliverables, goods, services, or other work required to perform ongoing system operations and maintenance. Contractor shall describe the extent and type of support in terms of the number of staff and skills needed in accordance with the Project Schedule.

Deliverable 4.3.2 – Draft Operations and Maintenance Plan Presentation

Contractor shall develop a presentation of their Draft Operations and Maintenance Plan for the new solution and present to CalPERS in accordance with the Project Plan and Schedule



Subtask 4.4 Finalize Concept of Operations Document

Deliverable 4.4.1 – Finalize ConOps

Contractor will update and finalize the ConOps document for the new solution in accordance with the Project Plan and Schedule. The ConOps document is used to facilitate understanding between the business users and Contractor.

Deliverable 4.4.2 – ConOps Presentation

Contractor shall develop a presentation of their ConOps for the new solution and present to CalPERS in accordance with the Project Plan and Schedule.

Subtask 4.5 Develop Draft Test Plan

Deliverable 4.5.1 – Draft Test Plan

Contractor shall develop the draft Test Plan using IEEE Standard 829-1998 or CalPERS approved equivalent incorporating the Test Strategies developed in Subtask 3.6.

Subtask 4.6 Finalize Data Conversion Plan

Deliverable 4.6.1 – Final DCP

Contractor shall update and finalize the Final DCP based on the Detailed Design Specifications.

Deliverable 4.6.2 – Final DCP Presentation

Contractor shall develop a presentation of their Final DCP and present to CalPERS in accordance with the Project Plan and Schedule.

Subtask 4.7 Phase Report

Deliverable 4.7.1 – Phase Report

Contractor shall submit a report indicating that all phase activity is complete including status of deliverables, outstanding issues, and their progress toward supporting the strategic goals of the project.



PROJECT PHASE 5: DEVELOPMENT

Subtask 5.1 Develop System and Application Architectures

Contractor must provide technical architectural descriptions that communicate the logical, physical, and implementation details of the system to CalPERS Enterprise Architecture Unit and CalPERS technical teams.

Deliverable 5.1.1 – Logical Architecture

Contractor shall provide the Logical Architecture in accordance with the Project Plan and Schedule.

Deliverable 5.1.2 – Physical Architecture

Contractor shall provide the Physical Architecture in accordance with the Project Plan and Project Schedule.

Deliverable 5.1.3 – Implementation Architecture “As-Built”

Contractor shall provide the documentation of the Implementation Architecture “as-built” in accordance with the Project Plan and Schedule.

Subtask 5.2 Finalize Technical Architecture Plan

Deliverable 5.2.1 – TAP

Contractor shall finalize TAP for the PSR Solution using IEEE Standard 1471-2000 or CalPERS approved equivalent to create the plan including:

- (a) Technical Architecture Team – team membership, governance, and oversight for technical architecture activities;
- (b) Architectural Studies and Evaluations – methodology, criteria, and engineering tradeoffs used to determine choices and components;
- (c) Technical guidelines; and,
- (d) Technical Architecture References – activities, references, and descriptions of technical architecture elements.
 - (i) Interfaces and boundaries
 - (ii) System properties
 - (iii) Reference models
 - (iv) Technology blueprints



- (v) Technology elements:
 - (1) Services
 - (2) Data sources and business rules
 - (3) Platforms, equipment, and packaged solutions
 - (4) Network

Deliverable 5.2.2 – TAP Presentation

Contractor shall develop a presentation of their TAP for the new solution and present to CalPERS in accordance with the Project Plan and Schedule.

Subtask 5.3 Develop Code and Document Unit Test Results

Deliverable 5.3.1 – Develop, Configure, Customize, and Modify Application Software

Contractor shall install, configure, and conduct unit level testing of the proposed solution in accordance with the Project Plan and Project Schedule. Contractor shall include phasing of the development effort in relationship to the business and functional areas.

Deliverable 5.3.2 – Source Code for Code Reviews

Contractor shall make available to CalPERS Project Manager, or designee, copies of all source code created or modified by Contractor, including modified COTS source code in accordance with the Project Schedule after the code has passed review by Contractor's quality assurance.

Deliverable 5.3.3 – Update Design Documents

Contractor shall provide updated design documents that reflect changes to the system based on the successful completion of Unit Test. The updated design documents shall be provided in accordance with the Project Schedule.

Deliverable 5.3.4 – Unit Test Results Document

Contractor shall provide all unit test results within fourteen (14) calendar days of completion of the test when the code has passed Unit Test. Test results shall be consolidated by major configuration item.

**Deliverable 5.3.5– Certification of Testing Activities**

Contractor shall provide a Certification of Testing Activities to the CalPERS Project Manager when the application programs are ready for CalPERS review and testing.

Deliverable 5.3.6 – Develop “As-Built” Documentation

Contractor shall develop detailed “as-built” documentation of the system application developed, configured, customized, or modified in accordance with the Project Plan.

Subtask 5.4 Create Service Level Agreement for CalPERS Data Center Services**Deliverable 5.4.1 – Service Level Agreement**

Contractor shall provide a Service Level Agreement (SLA) in accordance with the Project Plan and Project Schedule for the CalPERS Data Center. Contractor shall produce and deliver a SLA governing the delivery of PSR services to CalPERS before delivery of the solution. With CalPERS approval, the SLA may be updated as a result of Acceptance Testing.

Contractor is expected to deliver solutions that meet or exceed SLAs. After approval of the SLA, enhancements or changes to existing PSR features must not degrade or adversely affect approved service levels.

The SLA shall contain the following agreed-to service levels and methods to measure at a minimum:

- (a) System response times;
- (b) Application response times;
- (c) Service time-to-repair response times;
- (d) Reports based on performance metrics established at contract award; and,
- (e) Help Desk processes and service provider reports.

Deliverable 5.4.2 – Service Level Agreement Presentation

Contractor shall present the SLA to CalPERS in accordance with the Project Plan and Project Schedule.

Subtask 5.5 Finalize Application and Technical Security Plan**Deliverable 5.5.1 – Final Application and Technical Security Plan**

Contractor shall develop a Final Application and Technical Security Plan.



Subtask 5.6 Phase Report

Deliverable 5.6.1 – Phase Report

Contractor shall submit a report indicating that all phase activity is complete including status of deliverables, outstanding issues, and their progress toward supporting the strategic goals of the project.

PROJECT PHASE 6: DATA CONVERSION

Subtask 6.1 Develop Data Conversion Test Plan

Deliverable 6.1.1 – Data Conversion Test Plan

Contractor shall develop the Data Conversion Test Plan in accordance with the Project Plan and Project Schedule.

Deliverable 6.1.2 – Data Conversion Test Plan Presentation

Contractor shall present the Data Conversion Test Plan in accordance with the Project Plan and Project Schedule.

Subtask 6.2 Assure Data Conversion Readiness

Deliverable 6.2.1 – Data Conversion Environment

Contractor shall prepare an environment for data conversion in accordance with the Project Schedule.

Deliverable 6.2.2 – Data Conversion Test

Contractor shall use a test data set to run the complete data conversion program suite. CalPERS will validate the results prior to the CalPERS Project Manager approving the authorization to begin the data conversion effort.

Deliverable 6.2.3 – Revised Final Data Conversion Plan

Contractor shall revise the DCP based on the results of the Data Conversion Test.

**Subtask 6.3 Resolve Data Conversion Testing Defects****Deliverable 6.3.1** – Data Conversion Test Results Resolution Report

Contractor shall provide a report of all data conversion defects identified during testing by CalPERS staff and Contractor's recommended resolution to each issue. The Report will be discussed with the CalPERS Project Manager, Key Business and Technical Leads, and others that may be impacted by the system defects. CalPERS will have final authority on the resolution and/or mitigation strategy for each problem. If Contractor and CalPERS cannot come to agreement, the PSR Escalation Process shall be invoked.

Subtask 6.4 Execute Data Conversion

Contractor will iterate Deliverables 6.4.1 through 6.4.3 as stated below until CalPERS acceptance is obtained.

Deliverable 6.4.1 – Data Conversion Completion

Contractor shall perform data conversion and provide necessary maintenance in accordance with the Project Plan and Schedule.

Deliverable 6.4.2 – Data Conversion Report

Contractor shall provide a Data Conversion Report that documents all defects identified during conversion and the conversion effort in accordance with the Project DCP and Project Plan and Schedule.

Deliverable 6.4.3 – Data Conversion Defects Validation

Contractor shall work with CalPERS to resolve all defects and validate the conversion. Contractor shall provide validation results to CalPERS.

Deliverable 6.4.4 – Retired Equipment for Conversion Activities

Contractor shall remove temporary equipment provided for the data conversion activities unless the environment is scheduled for additional activities and retire legacy systems.

Subtask 6.5 Phase Report**Deliverable 6.5.1** – Phase Report

Contractor shall submit a report indicating that all phase activity is complete including status of deliverables, outstanding issues, and their progress toward supporting the strategic goals of the project.



PROJECT PHASE 7: ENVIRONMENT INSTALLATION

Subtask 7.1 Provide PSR Production Environment

Deliverable 7.1.1 – Installed PSR Production Hardware

Contractor shall assist CalPERS with the installation and configuration of PSR production hardware as documented by Contractor.

Deliverable 7.1.2 – Installed Production System-Level Software

Contractor shall assist CalPERS with the installation and configuration of system-level software as documented by Contractor.

Deliverable 7.1.3 – Installed Production Application Software

Contractor shall assist CalPERS with the installation of the software as documented by Contractor. All non third-party software including documentation, source, configuration and binary executable code must be placed into escrow for the duration of the project.

Deliverable 7.1.4 – Installed Production System Security

Contractor shall assist CalPERS with the installation and configuration of System Security measures and devices as documented by Contractor.

Deliverable 7.1.5 – Production Environment Certification Report

Contractor shall provide a Production Environment Certification Report that indicates that Contractor has successfully performed and documented the production environment of all operating and application system software and system hardware for the PSR Headquarters and Regional Offices for a specific business component and that the environments are ready for use.

Subtask 7.2 Provide PSR Non-Production Environment

Deliverable 7.2.1 – Installed PSR Non-Production Hardware

Contractor shall assist CalPERS with the installation and configuration of PSR non-production hardware as documented by Contractor.

Deliverable 7.2.2 – Installed Non-Production System-Level Software

Contractor shall assist CalPERS with the installation and configuration of system-level software as documented by Contractor.



Deliverable 7.2.3 – Installed Non-Production Application Software

CalPERS shall assist Contractor with the installation of the software as documented by Contractor. All non third-party software including documentation, source, configuration and binary executable code must be placed into escrow for the duration of the project.

Deliverable 7.2.4 – Installed Non-Production System Security

CalPERS shall assist Contractor with the installation and configuration of system security measures and devices as documented by Contractor.

Deliverable 7.2.5 – Non-Production Environment Certification Report

Contractor shall provide a Non-Production Environment Certification Report that indicates that Contractor has successfully performed and documented the non-production environment of all operating and application system software and system hardware for the PSR Headquarters and Regional Offices for a specific business component and that the environments are ready for use.

Subtask 7.3 Provide PSR Disaster Recovery Plan

Deliverable 7.3.1 – PSR System Disaster Recovery Plan

In accordance with CalPERS current Disaster Recovery practices, Contractor shall complete a PSR Disaster Recovery Plan that provides documentation on all CalPERS critical systems, applications, and data/communication resources that the PSR Project will affect.

Deliverable 7.3.2 – PSR Disaster Recovery Plan Presentation

Contractor shall develop a presentation of their PSR Disaster Recovery Plan and present to CalPERS in accordance with the Project Plan and Schedule.

Deliverable 7.3.3 – Perform PSR System Disaster Recovery Test

Contractor shall propose several scenarios to simulate Disaster Recovery and execute these simulations as a test of the PSR System Disaster Recovery procedures. The results of this must be documented and presented to CalPERS. Contractor will update the PSR Disaster Recovery Plan as required.



Subtask 7.4 Finalize Operations and Maintenance Plan

Deliverable 7.4.1 – Finalized Operations and Maintenance Plan

Contractor shall document all ongoing PSR operations and maintenance requirements of the system detailing all tasks, deliverables, goods, services, or other work required to perform ongoing system operations and maintenance. Contractor shall describe the extent and type of support in terms of the size of staff and skills needed.

Contractor shall provide the Operation and Maintenance Plan in accordance with the Project Schedule.

Deliverable 7.4.2 – Daily Operations Procedures

Contractor must provide detailed Daily Operations Procedures in accordance with the Project Schedule.

Subtask 7.5 Provide Operations and Maintenance Schedule

Deliverable 7.5.1 – PSR Operations and Maintenance Schedule

Contractor shall provide a schedule for implementing the Operations and Maintenance Plan.

Subtask 7.6 Finalize Training Plan

Deliverable 7.6.1 – Training Plan

Contractor shall finalize the comprehensive Training Plan having the following components:

- (a) Training scope;
- (b) Training courses and prerequisites;
- (c) Training schedule;
- (d) Training materials and curriculum;
- (e) Training the trainers; and,
- (f) Training procedures.

Deliverable 7.6.2 – Training Plan Presentation

Contractor shall present the Training Plan to CalPERS functional users and managers in accordance with the Project Schedule.



Deliverable 7.6.3 – Deliver Training Materials

Contractor shall develop and deliver training materials for CalPERS staff in accordance with the Project Schedule.

Subtask 7.7 Finalize Transition Plan

Deliverable 7.7.1 – Finalize Transition Plan

Contractor will update and finalize the Transition Plan for the new solution in accordance with the Project Plan and Schedule.

Subtask 7.8 Phase Report

Deliverable 7.8.1 – Phase Report

Contractor shall submit a report indicating that all phase activity is complete including status of deliverables, outstanding issues, and their progress toward supporting the strategic goals of the project.

PROJECT PHASE 8: SYSTEM TESTING

Subtask 8.1 Develop System and Interface Test Plan

Deliverable 8.1.1 – Finalize System and Interface Test Plan

Contractor shall finalize the System and Interface Test Plan in accordance with the Project Plan and Project Schedule.

Deliverable 8.1.2 – Conduct System and Interface Test

Contractor shall conduct the System and Interface Tests in accordance with the Project Plan, Project Schedule, and the Requirements Traceability Matrix.

Deliverable 8.1.3 – System and Interface Test Results Report

Contractor shall document the results of the System and Interface Testing in accordance with the Project Plan, Project Schedule, and Test Plan. CalPERS will also utilize the Requirements Traceability Matrix to ensure all requirements have been met.

Deliverable 8.1.4 – Integration Test Defect Report

Contractor shall perform and document the results of the interface test results in accordance with the Project Plan, Project Schedule, and Test Plan. CalPERS



will also utilize the Requirements Traceability Matrix to ensure all requirements have been met.

Subtask 8.2 Resolve System and Interface Test Defects**Deliverable 8.2.1 – System and Interface Test Results Resolution Report**

Contractor shall provide a report of all defects identified during system and interface testing by CalPERS staff and Contractor's recommended resolution for each defect. The Report will be discussed with the CalPERS Project Manager, Key Business and Technical Leads, and others that may be impacted by the defects. CalPERS will have final authority on the resolution and/or mitigation strategy for each problem. If Contractor and CalPERS cannot come to agreement, the CalPERS Escalation Process shall be invoked

Subtask 8.3 Prepare System and Interface Test Certification Report**Deliverable 8.3.1 – System Test Certification Report**

Contractor shall provide a System Test Certification Report which indicates that Contractor has successfully performed and documented system and interface tests of all operating and application system software and system hardware for the PSR Headquarters and Regional Offices for a specific business component.

Subtask 8.4 Phase Report**Deliverable 8.4.1 – Phase Report**

Contractor shall submit a report indicating that all phase activity is complete including status of deliverables, outstanding issues, and their progress toward supporting the strategic goals of the project.

PROJECT PHASE 9: SYSTEM ACCEPTANCE TESTING**Subtask 9.1 Provide Acceptance Test Training to CalPERS Staff****Deliverable 9.1.1 – Training Classes, Class Feedback Reports, Training Report for Acceptance Staff**

Contractor shall provide training for all CalPERS staff that have been identified to support Acceptance Testing activities.

Contractor shall conduct all training classes, gather and analyze Class Feedback Reports, and prepare a Monthly Training Report, during the months classes are conducted.



Deliverable 9.1.2 – Testing Staff Training Complete

Contractor shall certify in writing that all testing staff have received training.

Subtask 9.2 Perform Completion of Acceptance Test for Business Component

Deliverable 9.2.1 – Component Acceptance Test Report

Contractor shall provide assistance to CalPERS in conducting the component acceptance test and mapping all acceptance testing back to the updated Requirements Traceability Matrix.

Subtask 9.3 Conduct Stress and Load Testing

Deliverable 9.3.1 – Conduct Stress and Load Test

Contractor shall conduct Stress and Load Test of the PSR system in accordance with the Project Plan and Project Schedule.

Deliverable 9.3.2 – Stress and Load Test Report

Contractor shall document the Stress and Load Test results; recommendations must be made for areas where changes to the technical or business configuration can be made to improve performance. Performance must meet criteria for performance as set forth in the Technical Requirements. The tests will be performed in accordance with the Project Schedule.

Subtask 9.4 Develop Certification Documentation

Deliverable 9.4.1 – Certification of Test Results Report

Contractor shall present the results of all of the testing activities in a Certification of Test Results Report to the CalPERS Project Manager and Executive Management in accordance with the Project Plan and Schedule. (Note: this will be a compilation of the previous test results into a complete document.)

Subtask 9.5 Resolve System Acceptance Test Defects

Deliverable 9.5.1 – System Acceptance Test Results Defect Resolution Report

Contractor shall provide a report of all defects identified during testing by CalPERS staff and Contractor's recommended resolution for each defect. The Report will be discussed with the CalPERS Project Manager, Key Business and Technical Leads, and others that may be impacted by the system issues.



CalPERS will have final authority on the resolution and/or mitigation strategy for each problem. If Contractor and CalPERS cannot come to agreement, the Dispute Resolution Process shall be invoked.

Subtask 9.6 Develop and Deliver User Documentation**Deliverable 9.6.1** –User Documentation

Contractor shall develop and deliver user documentation tailored for the specific audience and business functions and CalPERS system as implemented. Distinction shall be made between executive-level users, manager-level, staff-level, and technical staff level materials.

Subtask 9.7 Phase Report**Deliverable 9.7.1** – Phase Report

Contractor shall submit a report indicating that all phase activity is complete including status of deliverables, outstanding issues, and their progress toward supporting the strategic goals of the project.

PROJECT PHASE 10: ROLL OUT**Subtask 10.1 Deploy the System****Deliverable 10.1.1** – Complete Roll Out of System and Roll Out Report

Contractor shall provide roll out of the complete PSR system to all CalPERS business areas once installation of hardware and training has been completed. Contractor shall prepare a report documenting the completion of system roll out, outstanding issues, lessons learned, and potential risks still to be addressed.

Deliverable 10.1.2 – Present Roll Out Report to CalPERS for Acceptance

Contractor shall develop a presentation of their Roll Out Report for the new solution and present to CalPERS in accordance with the Project Plan and Schedule.

Deliverable 10.1.3 – Acceptance

Contractor shall present results of roll out to CalPERS Project Manager, Business Owners Committee, and PSR Steering Committee for acceptance in accordance with the Project Plan and Schedule. Acceptance requires resolution of CalPERS concerns and agreement concerning resolution. Final acceptance will be made by the CalPERS Project Executives upon



recommendation of the CalPERS Project Manager, Business Owners Committee, and PSR Steering Committee.

Deliverable 10.1.4 – Update of Training Materials and System Documentation

Contractor shall update the developed training materials and system documentation to reflect the implemented business and technical solution in accordance with the Project Plan and Schedule.

Deliverable 10.1.5 – Final Operations Plan

Contractor shall provide a final Operations Plan updated to reflect the implemented business and technical solution in accordance with the Project Plan and Schedule.

Deliverable 10.1.6 – Maintenance Plan for Operations

Contractor shall provide a final Maintenance Plan for Operations updated to reflect the implemented business and technical solution in accordance with the Project Plan and Schedule.

Subtask 10.2 Provide Training of CalPERS Staff

Deliverable 10.2.1 – Completed Staff Training

Contractor shall develop all necessary training manuals, training session curricula, lesson plans, and other necessary materials to conduct each type of training session.

Contractor shall prepare separate training sessions for each CalPERS group as listed below:

- (a) Customer Service Representatives;
- (b) Supervisors;
- (c) Computer Operations and Production Support Personnel;
- (d) Help Desk Support Personnel;
- (e) Business Users; and,
- (f) External Customers such as Employers.

Deliverable 10.2.2 – Training Classes, Class Feedback Reports, Training Report for End Users

It is CalPERS desire to utilize a “Train the Trainer” approach for training the user community. If CalPERS elects to adopt an approach that utilizes Contractor staff to perform all training, Contractor shall conduct all training



classes, gather and analyze Class Feedback Reports, and prepare a Monthly Training Report for months class is conducted.

Contractor shall provide training for all CalPERS staff that have been identified in the RFP as system users.

Deliverable 10.2.3 – Final Report on Training Effectiveness

Contractor shall provide a comprehensive discussion of the method to assess the initial training effectiveness. CalPERS Project Manager or designee must approve Contractor's proposed method of assessing the effectiveness of the initial training. When all training has been completed, Contractor shall compile training results into a report with recommendations for changes in training or additional training required.

Deliverable 10.2.4 – Train the Trainers

Contractor shall provide CalPERS identified trainers for the PSR solution with sufficient training to teach/instruct other CalPERS staff or employers on the use of the PSR solution.

Deliverable 10.2.5 – Provide Training Support

Contractor shall provide support to the CalPERS Training Team by accompanying them on their initial training sessions in the field for the purpose of providing input and constructive suggestions to make future training more effective, efficient, and meaningful to the end users.

Subtask 10.3 Approve Implementation of Contracts Business Component

Deliverable 10.3.1 – Completion and Approve Implementation of Contracts Business Component

Subtask 10.4 Approve Implementation of Enrollment Business Component

Deliverable 10.4.1 – Completion and Approve Implementation of Enrollment Business Component

Subtask 10.5 Approve Implementation of Contribution Reporting Business Component

Deliverable 10.5.1 – Completion and Approve Implementation of Contribution Reporting Business Component



Subtask 10.6 Approve Implementation of Benefit Payment Business Component

Deliverable 10.6.1 – Completion and Approve Implementation of Benefit Payment Business Component

Subtask 10.7 Phase Report

Deliverable 10.7.1 – Phase Report

Contractor shall submit a report indicating that all phase activity is complete including status of deliverables, outstanding issues, and their progress toward supporting the strategic goals of the project.

PROJECT PHASE 11: FINAL SYSTEM ACCEPTANCE

Subtask 11.1 Approve PSR System

Deliverable 11.1.1 –End-to-End Test and Final Report

Contractor shall conduct a final End-to-End system test and provide a comprehensive report that includes, at a minimum Contractor's accomplishments, status of all contact deliverables, summary of any outstanding issues, and progress toward supporting the strategic goals of the project.

Deliverable 11.1.2 – Final System Acceptance

Contractor shall provide a Final System Acceptance sign off form. CalPERS will sign this form upon Contractor meeting all requirements and acceptance of final End-to-End test.

Insert Cost Table VII.11 Category Cost Summary, One-Time Development And Ongoing Costs By Fiscal Year In This Location. All cost columns must contain "XXX" in place of the actual costs.